

**DETAILED ACTION**

1. It is noted that the examiner prosecuting the case has changed. Please direct all correspondences to Katherine Salmon, Art Unit 1634.
2. A phone call was placed to Mr. Brooks per the request for a telephonic interview (reply 3/06/2008) to discuss the restriction (8/06/2007). As noted in the attached interview summary, based on the amendments to the claims a new restriction requirement is set forth below.
3. It is noted the requirement for restriction (8/06/2007) was made based upon a claim set which limited the claims to "a nucleotide" (12/10/2004), whereas the pending claims (3/06/2008) are directed to a method comprising "one or more SNP markers" as set forth in Table 1.
4. Claims 1-15 have been cancelled. Claims 16-67 are pending. Claims 16-21 have been withdrawn based on the election of Group II, methods of distinguishing a test rice from one or more rice varieties elected in the response to restriction (3/06/2008).

***Election/Restrictions***

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 16-21, drawn to a primer and a kit, classified in class 435, subclass 91.1, 91.2, and 810.

- II. Claims 22-67, drawn to method of distinguishing between rice varieties, classified in class 435, subclass 6.

The inventions are distinct, each from the other because of the following reasons:

5. Inventions I and II are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product. See MPEP § 806.05(h). In the instant case the oligonucleotide can be used in any hybridization, amplification or extension reaction. Additionally, the oligonucleotide can act as a probe. The search for the product and the search for the methods are not coextensive. The search of the methods would require a text search of the method steps in addition to the components necessary to complete the steps which are not required for the search of the oligonucleotide and the kit. Further, even if the oligonucleotide and kit were known, the method for using the oligonucleotide and the kit may be novel and unobvious in view of the preamble or active steps. Because these inventions are independent or distinct for the reasons given above and the inventions require a different field of search (see MPEP § 808.02), restriction for examination purposes as indicated is proper.

**FURTHER REQUIREMENT FOR RESTRCITON**

6. The claims are drawn to one or more SNP markers selected from the group

consisting of the SNP markers as set forth in TABLE 1.

The claims are drawn to methods which require identifying at least one SNP in a nucleic acid sample to infer a phenotype of a rice species. The claims are directed to numerous distinct methods recited in the alternative. The language "one or more SNP markers" requires that one, two, three, or any number more up to the 28 recited SNP markers in Table 1 are detected. For example, a method requiring SNP of SEQ ID NO: 1 is distinct from a method requiring SNP of SEQ ID NO: 2 because the methods have a different mode of operation, do not overlap in scope, and they are not obvious variants of one another (see MPEP 806.05(j)). As seen in Table 1, each of the SNPs are located in distinct markers, genes and sequences.

The claims further encompass many subcombinations which are disclosed as usable together in a single combination and which are also separately usable. For example, consider the following combinations of "one or more" SNP selected from those disclosed in SEQ ID NO: 1-26:

Subcombination (A): the SNP within SEQ ID NO: 1 and 2

Subcombination (B): the SNP within SEQ ID NO: 3 and 4

Combination (A+B): the SNP within SEQ ID NO: 1, 2, 3, and 4.

Each of the combinations of SNPs are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct if they do not overlap in scope and are not obvious variants, and if it is shown that at least one subcombination is separately usable. In this case subcombinations (A) and (B) do not

overlap in scope and there is no evidence on the record to suggest that they are obvious variants of one another. The subcombinations are separately usable as evidenced by their presentation in the alternative within the claims. Further, subcombination "A" has separate utility such as detecting the SNP, as a marker, or for linkage studies, for examples . So, subcombinations (A) and (B) are distinct. See MPEP § 806.05(d).

These subcombinations are also distinct from the combination which comprises them because the combination does not require the particulars of the subcombination as claimed to show novelty or unobviousness and the subcombinations have utility by themselves or in another combination. The fact that the claim encompasses an embodiment which relies on only subcombination (B) is evidence that the details of subcombination (A) are not required for patentability of the combination (A+B), and likewise, the fact that the claim encompasses an embodiment which relies on only subcombination (A) is evidence that the details of subcombination (B) are not required for patentability of subcombination (A+B). The fact that the claim encompasses embodiments which use only subcombination (A) or subcombination (B) is evidence that the subcombinations have utility by themselves.

This example particularly discusses only the combinations (A), (B) and (A+B), but the same analysis could be applied to each of the different subcombinations and combinations set forth in the instant claims.

Because these inventions are independent or distinct for the reasons given above and there would be a serious burden on the examiner if restriction is not required

because the inventions require a different field of search (see MPEP § 808.02), restriction for examination purposes as indicated is proper.

Each SNP must be searched by a separate query of the electronic databases.

See MPEP 808.02(C). Therefore, a search for methods which use each SNP or each combination of SNPs is not co-extensive with methods which use each other SNP or each other combination of SNPs , and subsequently, the search and examination for every SNP and every combination of SNP poses an enormous and serious burden on the examiner.

Applicant is required to select a single invention, i.e., **a single SNP or a single combination of SNPs** required for the claimed method. The invention may be a single SNP, a combination of more than one SNP but less than all of the disclosed SNP or a combination of all possible claimed SNPs. However, an election of a single invention, i.e., a single SNP or a single combination of SNPs is required. This restriction requirement is predicated on the fact that the methods which use different SNPs or different combinations of SNPs do not appear obvious over one another. Should applicant traverse on the ground that the different SNPs or different combinations of SNPs are not patentably distinct over each other , applicant should submit evident or identify such evidence now of record showing the inventions to be obvious variant over each other or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other inventions.

Applicant is also required to identify which claims read upon the elected invention.

The examiner has required restriction between subcombinations usable together. Where applicant elects a subcombination and claims thereto are subsequently found allowable, any claim(s) depending from or otherwise requiring all the limitations of the allowable subcombination will be examined for patentability in accordance with 37 CFR 1.104. See MPEP § 821.04(a). Applicant is advised that if any claim presented in a continuation or divisional application is anticipated by, or includes all the limitations of, a claim that is allowable in the present application, such claim may be subject to provisional statutory and/or nonstatutory double patenting rejections over the claims of the instant application.

7. Restriction for examination purposes as indicated is proper because all these inventions listed in this action are independent or distinct for the reasons given above and there would be a serious search and examination burden if restriction were not required because one or more of the following reasons apply:

- (a) the inventions have acquired a separate status in the art in view of their different classification;
- (b) the inventions have acquired a separate status in the art due to their recognized divergent subject matter;

- (c) the inventions require a different field of search (for example, searching different classes/subclasses or electronic resources, or employing different search queries);
- (d) the prior art applicable to one invention would not likely be applicable to another invention;
- (e) the inventions are likely to raise different non-prior art issues under 35 U.S.C. 101 and/or 35 U.S.C. 112, first paragraph.

**Applicant is advised that the reply to this requirement to be complete must include (i) an election of a invention to be examined even though the requirement may be traversed (37 CFR 1.143) and (ii) identification of the claims encompassing the elected invention.**

The election of an invention may be made with or without traverse. To reserve a right to petition, the election must be made with traverse. If the reply does not distinctly and specifically point out supposed errors in the restriction requirement, the election shall be treated as an election without traverse. Traversal must be presented at the time of election in order to be considered timely. Failure to timely traverse the requirement will result in the loss of right to petition under 37 CFR 1.144. If claims are added after the election, applicant must indicate which of these claims are readable on the elected invention.

If claims are added after the election, applicant must indicate which of these claims are readable upon the elected invention.

Should applicant traverse on the ground that the inventions are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the inventions to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

8. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

9. The examiner has required restriction between product and process claims. Where applicant elects claims directed to the product, and the product claims are subsequently found allowable, withdrawn process claims that depend from or otherwise require all the limitations of the allowable product claim will be considered for rejoinder. All claims directed to a nonelected process invention must require all the limitations of an allowable product claim for that process invention to be rejoined.

In the event of rejoinder, the requirement for restriction between the product claims and the rejoined process claims will be withdrawn, and the rejoined process claims will be fully examined for patentability in accordance with 37 CFR 1.104. Thus, to

be allowable, the rejoined claims must meet all criteria for patentability including the requirements of 35 U.S.C. 101, 102, 103 and 112. Until all claims to the elected product are found allowable, an otherwise proper restriction requirement between product claims and process claims may be maintained. Withdrawn process claims that are not commensurate in scope with an allowable product claim will not be rejoined. See MPEP § 821.04(b). Additionally, in order to retain the right to rejoinder in accordance with the above policy, applicant is advised that the process claims should be amended during prosecution to require the limitations of the product claims. **Failure to do so may result in a loss of the right to rejoinder.** Further, note that the prohibition against double patenting rejections of 35 U.S.C. 121 does not apply where the restriction requirement is withdrawn by the examiner before the patent issues. See MPEP § 804.01. Any inquiry concerning this communication or earlier communications from the examiner should be directed to KATHERINE SALMON whose telephone number is (571)272-3316. The examiner can normally be reached on Monday-Friday 8AM-430PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ram Shukla can be reached on (571) 272-0735. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1634

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Katherine Salmon/  
Examiner, Art Unit 1634

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